

# How to Use Foreign Comparative Testing (FCT) in Your Program

## Identifying and Procuring World-class Foreign Equipment — Now!

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Today's downsizing environment is a scary proposition for Department of Defense (DoD) program managers as competition for scarce Research, Development, Test and Evaluation (RDT&E) and production dollars intensifies. This article describes how you, a program manager, will find the Foreign Comparative Testing (FCT) Program a surprising tool for your "management toolbox."

Tried and proven, FCT is a cost-effective method of providing equipment to the warfighter. Also, FCT provides you with Office of the Secretary of Defense (OSD) funds to test and evaluate foreign nondevelopmental equipment to meet Service or Commander in Chief (CINC) mission requirements. The good news is those funds are not subject to "fiscal raids" within your own Service. Of course there are more FCT proposals than funding, so you must compete for the dollars.

### What is the FCT Program?

While FCT was authorized by Congress in 1989, its predecessors, the Foreign Weapons Evaluation and North Atlantic Treaty Organization (NATO) Comparative Testing (NCT) programs existed for many years. The

AN EXAMPLE OF A NUCLEAR, BIOLOGICAL, CHEMICAL AGENT DETECTOR ALARM, DEVELOPED BY THE BRITISH AND SUBSEQUENTLY PURCHASED BY THE U.S. ARMY FOR ITS NBC RECONNAISSANCE VEHICLES, IS THE BRITISH GID-3 AUTOMATIC CHEMICAL AGENT DETEC-

TOR ALARM (ACADA).  
Photo courtesy Graseby Dynamics Ltd.



K-36 RUSSIAN EJECTION SEAT. TECHNOLOGY FROM THE RUSSIAN K-36 EJECTION SEAT IS BEING ASSESSED FOR APPLICATION INTO THE FOURTH GENERATION EJECTION SEAT AND IS STRONGLY SUPPORTED BY THE USAF FOR POSSIBLE INSERTION INTO THE JOINT ADVANCED STRIKE TECHNOLOGY (JAST) PROGRAM.

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FCT Program is administered by the Director, Test Systems Engineering and Evaluation, Office of the Under Secretary of Defense (Acquisition and Technology). It fits well with the latest DoD trends toward using commercial and Nondevelopmental Items (NDI).

The FCT Program tests and evaluates foreign NDI developed by U.S. allies

and other friendly nations to determine whether the equipment can satisfy CINC and Service requirements or correct mission area shortcomings. Many foreign NDI items offer cost-effective alternatives to new, and perhaps unnecessary, U.S. developmental efforts and can reduce the time to field equipment needed by the warfighter. By identifying foreign alternatives, FCT stimulates competition from U.S. manufacturers. However, safeguards are in

place to ensure that U.S. manufacturers are not placed at any disadvantage and that U.S. industrial base issues are considered.

The FCT Program also delivers the benefits found in purchasing NDI. A Defense Systems Management College (DSMC) report, *NDI Acquisition: An Alternative to "Business as Usual,"*<sup>1</sup> clarifies what constitutes an NDI purchase. It describes Congress's definition of NDI as:

- any item available in the commercial marketplace;

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- any previously developed item in use by the U.S. Government or cooperating foreign governments; or
- any item of supply needing only minor modifications to meet DoD requirements.

#### DoD Benefits from the FCT Program

Are there ways you, a DoD program manager, can benefit from the FCT Program? As you know, acquisition benefits come in three flavors. You've



EAGLE VISION SHELTER AND SATELLITE DOWNLINK GROUND STATION. EAGLE VISION IS A FRENCH TRANSPORTABLE SPOT IMAGERY RECEIVING STATION THAT ELECTRONICALLY PROCESSES THE SPOT IMAGERY FOR USAF USE. THIS SYSTEM IS NOW SUPPORTING BOSNIA OPERATIONS AND HAS THE SUPPORT OF THE AIR FORCE CHIEF OF STAFF. Photos courtesy Environmental Research Institute of Michigan, Matra Cap Systemes, and Datron/Transco Inc.



ISRAELI HAVE NAP (AGM-142) MISSILE. THE USAF HAVE NAP MISSILE ALONE WOULD HAVE COST ABOUT \$160 MILLION TO DEVELOP DOMESTICALLY. FOR THE COST OF \$10 MILLION IN FCT FUNDS, HAVE NAP WAS QUALIFIED AND PROCURED FOR USAF USE. HAVE NAP, ALSO KNOWN AS THE AGM-142, IS STILL IN THE USAF'S INVENTORY TODAY.

Photo courtesy of Rafael

heard them before – cost, schedule, and performance. The FCT Program helps meet Service mission requirements and accelerates fielding of equipment to the warfighter. Over the life of the Program, FCT has:

- resulted in over \$3.4 billion in Service procurements of foreign equipment with \$425 million FCT funds expended to conduct all tests (a ratio of 7:1);
- saved hundreds of millions in proven RDT&E cost avoidance;
- leveraged RDT&E dollars invested by other countries;
- stimulated competition and alternate sources of equipment;
- helped promote two-way weapons cooperation and sales with our allies; and
- created teaming arrangements between foreign and U.S. vendors thereby stimulating domestic economic benefits and jobs.

In fact, many products tested under the FCT Program end up being produced in whole or in part by U.S. contractors. The sometimes voiced complaint that FCT moves employment overseas just doesn't hold water.

### Success Stories

Proof is in the pudding, and FCT has pudding to prove. Figure 1 depicts a sample of Service procurements that resulted from locating world-class foreign products. The U.S. Air Force (USAF) Have Nap missile alone would have cost about \$160 million to develop domestically. For the cost of \$10 million in FCT funds, Have Nap was qualified and procured for USAF use. Have Nap, also known as the AGM-142, is still in the USAF's inventory today.

Some FCT success stories cannot be correctly described in dollar amounts. For example, the French commercial Spot satellite broad-area imagery evaluated under FCT was used by the USAF during Desert Storm to map Iraqi terrain for use in our mission planning system. The imagery was unclassified (releasable

**Figure 1. Service Procurements Resulting from Locating World-class Foreign Products**

Service	Product Name	Procurement Cost (\$M)	Number
Army	105MM Lightweight Howitzers	362.0	427
Navy	Penguin Missiles	251.0	101
Air Force	Have Nap Missiles (AGM-142)	203.0	160
Army	Improved 81MM Mortar Round	342.8	2,250,000
Navy	Infrared Imaging Systems	138.6	53
Air Force	Durandal Runway Attack Weapon	241.0	6,900
Army	NBC Reconnaissance Vehicles	180.8	113
Marine Corps	Night Attack Avionics Systems	126.0	1,112
Air Force	Aircrew Chemical Defense Suits	42.3	97,200

to our coalition partners), available, and inexpensive. The follow-on FCT effort, Eagle Vision, is a French transportable Spot imagery receiving station that electronically processes the Spot imagery for USAF use. This system is now supporting Bosnia operations and has the support of the Air Force Chief of Staff.

The FCT Program capitalizes on the benefits found in purchasing NDI items. In the DSMC report, *NDI Acquisition: An Alternative to "Business as Usual,"*<sup>2</sup> NDI acquisitions provide many benefits to program managers. "Benefits include:

- quick response to operator needs;
- elimination or reduction of research and development costs;
- application of state-of-the-art technology to current requirements; and
- reduction of technology, cost, and schedule risks."

Please keep this in mind. Using the FCT Program can reduce technology, cost, and schedule risks.

If meeting a mission need is too costly with a domestic development, it might be affordable using a foreign product, even if that product is not the 100-percent solution. Remember, cost is now regarded within DoD as an independent variable, which could mean a mission need won't be met until a

solution can be found below a certain cost threshold.

### Risks

Certainly FCT projects do not come without management risks. However, FCT projects are scrutinized at higher levels within your Service and OSD. This scrutiny may at first seem a detriment, but once you satisfy the program criteria and obtain OSD funding approval for the project, you can use that approval to your advantage by:

- showing the foreign vendor OSD support;
- knowing the funds you receive from OSD will not be taken by Service financial raids; and
- having the confidence your program is specifically approved by Congress.

The DSMC report on NDI<sup>3</sup> described additional FCT challenges as:

- mission performance trade-offs being required to gain advantages from pursuing NDI alternatives;
- logistics support;
- product modifications; and
- concern over continued product availability.

### Legal Language For the Hard Core Types

What legal requirements must you cover to have an FCT Project? By

law, FCT is a Title 10 program (10 U.S.C. 2325) and has its own specific legal obligations. Subpart 206.302-1(b) of the Defense Federal Acquisition Regulation Supplement (DFARS) permits contracting officers to use the authority of Subpart 6.302-1 of the Federal Acquisition Regulation (FAR) to buy test articles and associated test support services from foreign sources for the FCT program. A standard Justification and Authorization (J&A), as provided in Subparts 6.303 and 6.304, should be used. Your Service may have a class J&A ready for your contracting officer's use to assist in procuring foreign test articles.

In addition, FCT supports standardization objectives outlined in 10 U.S.C. 2457(b), thus helping your program meet additional requirements. Finally, your Milestone Decision Authority (MDA) must consider the identification of cooperative opportunities as required by 10 U.S.C. 2350a.(e). If a cooperative opportunity is located, FCT could be your tool to obtain the product for test and evaluation.

Approval for an FCT project comes from Congress (FCT test notifications 10 U.S.C. 2350a.(g); and annual reports to Congress, submitted by OSD with your inputs, are required (10 U.S.C. 2457d.). Further, U.S. law (10 U.S.C. 140) requires market research and analysis to determine all possible products, foreign and domestic, if FCT is being considered for your program. Worried about the Buy American Act? The DFARS, Subpart 225.872, waives the Buy American Act for NATO and other qualifying countries when using the FCT Program. (Refer to the DFAR, Subpart 225.)

The Federal Acquisition Streamlining Act (FASA) also has provisions for NDI. It changes FAR Part 6 (6.202 and 6.502), Sections 1002 (for 10 U.S.C.) and 1052 (for 41 U.S.C.), to establish or maintain alternative sources to ensure reliable sources of supply. Of course, FASA has many new provisions for using commercial products,

and many FCT products fall within these guidelines.

Because the FCT Program is designed to procure foreign NDI products, procedures for purchasing NDI equipment generally apply. *Buying NDI*, a Production and Logistics Guide published by the Office of the Assistant Secretary of Defense; the NDI Preference Act of 1987; and the Packard Commission of June 1986 all prescribe lesser reliance on military specifications and a greater use of "off-the-shelf" components. As expected, when selecting NDI, life-cycle cost, effectiveness, and suitability criteria should be used. Also, NDI should be considered for sub-component level, and the FCT program fully supports this concept.

Today personnel in acquisition should remain continuously cognizant of international expertise and products in their specialty. The documents mentioned in the preceding paragraph describe source selection, solicitation, market analysis, testing, warranties, data rights, product assurance, logistics considerations, preparation and use of commercial item descriptions, and logistics tailoring support for NDI.

In the new draft 5000.1 series documentation, the FCT Program is described as a tool to help program managers assess international cooperative opportunities and, as such, should be part of your institutional approach for acquisition. Section 2.3.1 of the draft 5000.1 document tells us to consider system performance in the commercial and foreign weapon sector to assist in the development of the Operational Requirements Document (ORD) or Mission Needs Statement (MNS). The document also tells the program manager to require that prime contractors and subcontractors incorporate NDI where it's cost effective. These items "shall be based on widely used and commercially supported specifications and standards to the maximum extent practicable."

The current DoD 5000.1 document also supports FCT. It establishes a pri-

ority for acquisition program material alternatives. First priority is to use or modify an existing U.S. military system. Second is to use or modify an existing commercially developed or allied NDI system (FCT supports this priority). These take precedence over an international cooperative R&D project, a joint Service program, and Service-unique developmental programs. The draft 5000.1 also calls for setting program cost objectives. If a requirement solution exceeds a pre-determined cost threshold, less expensive

## **Worried about the Buy American Act? The DFARS, Subpart 225.872, waives the Buy American Act for NATO and other qualifying countries when using the FCT Program.**

alternatives must be selected. Program managers should keep the FCT Program in mind as a means to support DoD 5000.1 objectives.

**How to Submit an FCT Proposal**  
A Candidate Nomination Proposal (CNP) format is used to focus preparers on the information required by OSD. Currently, OSD's *Foreign Comparative Testing (FCT) Program Procedures Manual*<sup>4</sup> is being rewritten to provide amplifying guidance. Examples of CNPs (electronic copy and paper), the Procedures Manual, and other documentation can be provided



Figure 2. FCT Program Points of Contact

ARMY	
Mr. Bloom, ICPA	
Comm:	410-278-1368
DSN:	298-1368
E-Mail:	rbloom@apg-9.apg.army.mil
NAVY	
Mr. Milligan, IPO O3C4	
Comm:	703-604-4967
DSN:	664-4967
E-Mail:	jmilligan@san.idss.iad.org
AIR FORCE	
Maj. VanderWerf, SAF/IAQ	
Comm:	703-607-3153
DSN:	327-3153
E-Mail:	stan.vanderwerf@saf-ia.hq.af.mil
MARINES	
Mr. Palmer, MARCORSYSCOM PSL-ICP	
Comm:	703-784-5871
DSN:	278-5871
E-Mail:	palmerc@mqg-smtp3.usmc.mil
USSOCOM	
Mr. Nelson, SOAC-SP	
Comm:	813-840-5264
DSN:	299-5264
E-Mail:	nelsonrg@hqsocom.af.mil
OSD	
Col. Catts, OUSD(A&T)T&E	
Comm:	703-578-8222
DSN:	None
E-Mail:	cattsrq@acq.osd.mil

by the Service focal points for the FCT Program.

Each year, the Services and the U.S. Special Operations Command (USSOCCOM) nominate FCT projects to OSD for consideration. Each CNP is screened to determine:

- if the item meets DoD's NDI definition;
- if there is a valid requirement;
- whether a thorough market investigation was conducted;
- whether a viable acquisition strategy exists (e.g., the Service intends to procure or insert into an existing project if the equipment meets enough requirements);
- what potential benefits exist;

- the level of user advocacy;
- determination of adequate test procedures and plans; and
- any special contracting considerations.

A list of FCT projects is submitted initially in the President's budget. Later in the year, summary data on each project are formally nominated to Congress. If no congressional questions are asked after a "30-day Congressional Notification Period," the projects are then considered congressionally approved and are ready to receive funding at the beginning of the new fiscal year. Generally, projects are one or two years in length. After receipt of funding, quarterly progress reports, a test report, disposition report, and other sundry requests for information will be required.

### Acquisition Strategy

The most successful acquisition strategies for FCT follow two general test categories: comparative and qualitative. A third category called technical assessment exists but is the lowest priority and has a lower probability of receiving funding since there is no intent to procure. Under a comparative approach, more than one product exists to potentially meet the requirement, and at least one must be foreign. A qualification typically means only one possible product exists to meet the requirement, and it is a foreign product. The following three examples provide derivatives of actual cases where an FCT project led to a procurement. Procurement funding is provided by the Services.

- While in pre-Milestone I, you submit a *Commerce Business Daily* announcement requesting NDI products to meet the user's requirement. One U.S. and one foreign company respond. You test and evaluate these products (testing of the U.S. item cannot be funded under FCT, but the cost of testing the foreign item is) and determine at least one meets your needs. At your Milestone I review, you recommend the Milestone Decision Authority

permit your program to proceed directly to Milestone III since an NDI item meeting the requirement has been found. You place a competitive bid for production, save 18 months in the program, and return a percentage of your R&D funding to the program element monitor to satisfy other Service requirements.

- You are Chief of Supply for a major Service laboratory, and a requirement exists for a specialized electron microscope capability. Only one foreign company makes this equipment. You have a qualification strategy and use FCT funding to contract for the lease of the test unit. You also place an option on the contract for purchase of the test unit and purchase of two additional units (your requirement is only for three items). The item meets your requirements and you exercise the option. Ultimately, FCT was a great benefit because you had Operations and Maintenance money to buy the units but no RDT&E funds to test the items. The FCT Program provided those funds.
- You have a single domestic supplier for an older product still in use in your inventory. Since the item was sold extensively overseas through Foreign Military Sales, you find a foreign supplier as a possible second source, but you question the foreign supplier's ability to meet your needs. After approval and testing under FCT, you determine the foreign-produced item meets the requirement, and you publish a Request for Proposal for supplies of this item. The domestic and foreign companies bid and compete. The U.S. company wins, but because of the competition, you now get U.S.-produced items at a 20-percent savings. Another possibility is to contract with both companies using a task-order approach.

### New and Future Potential Programs

To illustrate some new areas which stand to benefit from the FCT Program, let me offer the following list of ongoing and proposed projects:

**Light Defender**, an Israeli product, is the No. 1 FCT priority for the USAF because it addresses a critical mission need to preemptively destroy enemy air defenses.

A **Micro Satellite bus** from the United Kingdom, which provides a payload mount and power distribution for small space experimentation is proposed for FY97 funding.

The **Modular RECCE Pod** is an inexpensive Danish pod in pre-production specifically designed for use on F-16s.

Technology from the **Russian K-36 Ejection Seat** is being assessed for application into the fourth generation ejection seat and is strongly supported by the USAF for possible insertion into the Joint Advanced Strike Technology (JAST) Program.

The supplier for Milstar Traveling Wave Tubes for ground stations was bought by another company that

closed the production line, forcing the Milstar Program to request an FCT test for a new French supplier.

Finally, the French Renaissance View Satellite Imagery Project is testing several foreign commercial radar imagery products for insertion into the Air Force's Mission Planning System. It will allow the USAF to use inexpensive, all-weather broad area imagery for coalition warfighting mission planning.

#### Who to Contact

Are you convinced yet that the FCT can help your program? If you have a project idea or any questions regarding FCT, please first contact your Service representative. Also, if necessary, feel free to request information from any of the contacts shown in Figure 2.

#### Summary

The FCT Program is exactly the program we need today with current budget constraints because it identifies for

procurement world-class foreign equipment, which has been developed by another country.

The FCT Program allows the Services to leverage the RDT&E investments of our allies and other friendly nations to satisfy our own needs at a reduced cost and accelerated program schedule. If you are a program manager, you should look into this program. At least be aware it is an option worth consideration, and a possible avenue to meet a mission need, save your program money, avert a schedule slippage, or perhaps even save your program altogether.

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#### ENDNOTES

1. NDI Acquisition: An Alternative to "Business as Usual," DSMC 1991-2, Military Research Fellows Report.
2. Ibid.
3. Ibid.
4. Foreign Comparative Testing (FCT) Program Procedures Manual, DoD 5000.3-M-2 (OSD, January 1994).

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On behalf of the DSMC Visual Arts and Press, many thanks for your continued readership and support.

— Collie Johnson  
Managing Editor